## CLAIMS

 A catalyst composition comprising a perovskite-type composite oxide represented by the following general formula
 (1):

$$A_{1-x}A'_{x}B_{1-(y+z)}B'_{y}N_{z}O_{3}$$
 (1)

wherein A represents at least one element selected from alkaline earth metals; A' represents at least one element selected from rare earth elements; B represents at least one element selected from Ti, Zr, and Hf; B' represents at least one element selected from transition elements (excluding rare earth elements, Ti, Zr, Hf, Rh, and Pt) and Al; N represents at least one element selected from Rh and Pt; x represents an atomic ratio satisfying the following condition:  $0 \le x \le 0.4$ ; y represents an atomic ratio satisfying the following condition:  $0 \le y < 0.5$ ; z represents an atomic ratio satisfying the following condition:  $0 \le y \le 0.5$ ; and X represents 0 when N represents Pt alone.

- 2. The catalyst composition according to claim 1, wherein A represents at least one element selected from Ca, Sr, and Ba in the general formula (1).
- 3. The catalyst composition according to claim 2, wherein A represents Ca when N represents Pt in the general formula (1).
  - 4. The catalyst composition according to claim 1,

wherein x represents 0 in the general formula (1).

- 5. The catalyst composition according to claim 1, wherein B represents at least one element selected from Ti and Zr in the general formula (1).
- 6. The catalyst composition according to claim 5, wherein B represents Ti when N represents Rh in the general formula (1).
- 7. The catalyst composition according to claim 1, wherein y represents 0 in the general formula (1).
- 8. A catalyst composition comprising a perovskite-type composite oxide represented by the following general formula (2):

$$AB_{1-z}N_zO_3 \tag{2}$$

wherein A represents at least one element selected from Ca, Sr and Ba; B represents at least one element selected from Ti and Zr; N represents at least one element selected from Rh and Pt; and z represents an atomic ratio satisfying the following condition:  $0 < z \le 0.5$ .

9. A catalyst composition comprising a perovskite-type composite oxide represented by the following general formula (3):

$$AB_{1-z}Rh_zO_3 \tag{3}$$

wherein A represents at least one element selected from Ca, Sr and Ba; B represents Ti; and z represents an atomic ratio satisfying the following condition:  $0 < z \le 0.5$ .

10. A catalyst composition comprising a perovskitetype composite oxide represented by the following general formula (4):

$$AB_{1-z}Pt_zO_3 \tag{4}$$

wherein A represents at least one element selected from Ca and Ba; B represents at least one element selected from Ti and Zr; and z represents an atomic ratio satisfying the following condition:  $0 < z \le 0.5$ .

11. A catalyst composition comprising a perovskitetype composite oxide represented by the following general formula (5):

$$A_w A'_x B_{1-(y+z)} B'_y N_z O_{3+\delta}$$
 (5)

wherein A represents at least one element selected from alkaline earth metals; A' represents at least one element selected from rare earth elements; B represents at least one element selected from Ti, Zr, and Hf; B' represents at least one element selected from transition elements (excluding rare earth elements, Ti, Zr, Hf, Rh, and Pt) and Al; N represents at least one element selected from Rh and Pt; b represents an atomic ratio satisfying the following condition:  $0 \le b \le 0.4$ ; w represents an atomic ratio satisfying the following condition: w > (1 - x); y represents an atomic ratio satisfying the following condition:  $0 \le y < 0.5$ ; z represents an atomic ratio satisfying the following condition:  $0 \le y < 0.5$ ; z represents an atomic ratio satisfying the following condition:  $0 \le z \le 0.5$ ;  $0 \le 0.5$ 

represents 0 when N represents Pt alone.

- 12. The catalyst composition according to claim 11, wherein A represents at least one element selected from Ca, Sr, and Ba in the general formula (5).
- 13. The catalyst composition according to claim 12, wherein A represents Ca when N represents Pt in the general formula (5).
- 14. The catalyst composition according to claim 11, wherein x represents 0 in the general formula (5).
- 15. The catalyst composition according to claim 11, wherein B represents at least one element selected from Ti and Zr in the general formula (5).
- 16. The catalyst composition according to claim 15, wherein B represents Ti when N represents Rh in the general formula (5).
- 17. The catalyst composition according to claim 11, wherein y represents 0 in the general formula (5).
- 18. A catalyst composition comprising a perovskitetype composite oxide represented by the following general formula (6):

$$A_{v}B_{1-z}N_{z}O_{3+\delta} \tag{6}$$

wherein A represents at least one element selected from Ca,
Sr and Ba; B represents at least one element selected from Ti
and Zr; N represents at least one element selected from Rh
and Pt; v represents an atomic ratio satisfying the following

condition: 1 < v; z represents an atomic ratio satisfying the following condition: 0 < z  $\leq$  0.5; and  $\delta$  represents an oxygen excess.

19. A catalyst composition comprising a perovskitetype composite oxide represented by the following general formula (7):

$$A_{v}B_{1-z}Rh_{z}O_{3+\delta} \tag{7}$$

wherein A represents at least one element selected from Ca, Sr and Ba; B represents Ti; v represents an atomic ratio satisfying the following condition: 1 < v; z represents an atomic ratio satisfying the following condition:  $0 < z \le 0.5$ ; and  $\delta$  represents an oxygen excess.

20. A catalyst composition comprising a perovskitetype composite oxide represented by the following general formula (8):

$$A_{v}B_{1-z}Pt_{z}O_{3+\delta}$$
 (8)

wherein A represents at least one element selected from Ca and Ba; B represents at least one element selected from Ti and Zr; v represents an atomic ratio satisfying the following condition: 1 < v; z represents an atomic ratio satisfying the following condition:  $0 < z \le 0.5$ ; and  $\delta$  represents an oxygen excess.